American Fern Journal

Vol. 3 JANUARY, 1913 No 1

Polypodium speluncae L. A question of nomenclature

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During the preparation of a supplement to my Index Filicum, which I hope will be issued within the summer of 1913, I came upon several corrections to the nomenclature of the Index, pointed out by different pteridologists during the last six years. Many of these corrections are right and will be taken up in the supplement, others are in my opinion unjustified. I can not, of course, protest against all false binomials, but shall confine myself to protest against a single one, which has appeared in the AMERICAN FERN JOURNAL. The case is very illustrative because it shows: (1) how new combinations can be published in a very tedious manner, even by an American, and (2) on what superficial reasons a pteridologist, though commonly very exact and consequent, has arrived at his results.

In an article on Bermuda ferns, H. G. Rugg[1] uses the name *Dryopteris speluncae* (L.) Und. As far as I can find, that combination was never used by Underwood in his papers on ferns, but it may, of course, have been published by another author in a publication unknown to me. This being the case, Mr. Rugg is correct in using the name, but I believe that the name appears for the first time in

[1] This JOURNAL **2:** 16–18. 1912.
[No. 4 of the JOURNAL (**2:** 97-128) was issued Oct. 1912].

Mr. Rugg's article,* and the question is then: Can the new binomial be considered *rite* published? I answer: No! No one not very familiar with tropical ferns can know which species Rugg is speaking about, because he does not quote even one synonym. I seriously protest against that kind of publishing of new names. In a paper of purely phytogeographical contents, the author ought to use such binomials only that are published before. An instance of a correct publication of a new name appeared in the same number of the JOURNAL, *viz.*, in Mr. Maxon's paper on *Polypodium Saffordii*.

But now as to the combination *Dryopteris speluncae* (L.) Und. itself, I shall shortly again try to show that it is founded on a false base. In my paper on some Swartzian ferns,[1] I have dealt with the question once before. The question being of special interest to American pteridologists I shall here repeat my conclusions about the matter in English.

Underwood wrote in 1907 the following:[2] "We reproduce here a single plate [*i. e.* Plukenet *tab. 244*] from the latter, which is just now interesting because it figures a fern peculiar to the caves of Bermuda and named from that circumstance (*Polypodium speluncae* L.), but one which jugglers of the past generation of botanists have placed outside its proper species, genus and even tribe, and have attributed to nearly all parts of the tropical world except, alas, the very island from which it originally came!" It is probable that Mr. Rugg has used the combination *Dryopteris speluncae* (L.) Und. on the

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*If this is the case, the responsibility belongs not to Rugg but to Benedict, to whom, as noted in the paper, the material had been referred for partial identification. Ed.

[1] Arkiv "Bot. 9:" 6, 7. 1910.

[2] Pop. Sci. Monthly **70**: 504. 1907.

authority of Underwood believing that Underwood's statement in the sentences quoted above was right. Let us then examine the matter from the bottom.

Polypodium speluncae was named by Linnaeus in the first edition (1753) of Species Plantarum, p. 1093, and described thus: "Polypodium fronde supradecomposita pilosa: foliis lanceolatis pinnatis: pinnis oppositis pinnatifidis. *Fl. Zeyl.* 384." 'Filix bermudensis elegans ramosa pinnis rarioribus dentatis, cauliculis muscosa lamigine obductis. *Pluk. alm.* 155 t. 244 f. 2." "*Habitat* in Indiis."

Hereafter it is evident that the species was described first in Fl. Zeyl. 384, and that the Indian plant described there is that species, which Linnaeus in Spec. Plant. gives the specific name: spelunca. In Flora Zeylanica, a work of Linnaeus, published in 1748, we find, p. 182, under No. 384 a "Polypodium fronde supradecomposita pilosa, foliolis lanceolatis pinnatis, pinnis pinnatifidis," and following other quotations we find again a reference to Plukenet, but now quoted thus: "Filix bermudensis elegans ramosa, pinnis rarioribus profunde dentatis spelunca rupium innascens, caul culis muscosa lamigine obductis.—*Pluk. Alm. 155 t. 244 f. 2. Certo.*"

The word "certo" (certainly, surely) means that Linnaeus was convinced that his species, collected in Ceylon (or India) by P. Hermannus, was the same as that plant from Bermuda figured by Plukenet, and therefore he later on took his specific name from Plukenet's short description. But Linnaeus was not correct. Plukenet's plate figures what is generally known as *Dryopteris ampla* (Willd.) O. Ktze., a species not at all occurring in East India, whence *Polypodium speluncae* came! The explanation of Underwood's mistake is, I think, that he had overlooked the quotation: "*Fl. Zeyl.* 384" in Spec. Plant, which follows immediately after the diagnosis.

Polypodium speluncae L. was first by Moore identified with *Davallia polypodiodes* Hk., which species is since commonly called *Microlepia speluncae.* Whether Moore was correct in that identification is unfortunately not quite sure. According to B. D. Jackson,[1] no specimen of *P. spelunca* is to be found in the Linnaean Herbarium.

SUMMARY: The combination *Dryopteris speluncae* (L.) Und. is not well founded, and it ought not to have been published. The Bermuda plant is probably *D. ampla*, as given in my forthcoming revision of the American decompound species of *Dryopteris. Polypodium speluncae* L. may be the species generally called *Microlepia speluncae* (L.) Moore, but this is not proved, certainly it is not *D. ampla.*

COPENHAGEN, DECEMBER, 1912.

Wayside ferns of the Dolomites

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The route through the Dolomite region, which is usually followed by travelers arriving from the south, runs from Belluno in northeastern Italy, where the railway stops, by way of Cortina and the new "Dolomites Road," to Bozen in the valley of the Adige. Geologically speaking, it hardly touches the real Dolomites at all. For three-quarters of its length, it traverses a belt of "more or less pure" Triassic limestone which wholly lacks the high percentage of magnesium characteristic of true dolomite. For the latter part of the way, on the descent through the Eggenthal to Bozen, the prevailing rock is a rather close-grained, purplish porphyry, in appearance very like

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[1] Index to the Linnaean Herbarium. Proceedings of the Linnaean Soc. London 124th Session **1912:** 120. 1912.